

The Egyptian Academy
of Scientific Research&Technology
Council of Mineral Resources
Specialized Maps Committee



The Ministry of Industry & Technology Egyptian Geological Survey &Mining Authority

NH 35

NH 36

Explanatory Note
The Metallogenic Map of Egypt

Scale 1:1,000,000

NG 35

NG 36

The Egyptian Geological Survey and Mining Authority

F 35

Cairo - 2001

## Fig 2: Simplified Legend For The Precambrian Terrane (After Takla & Hussein, 1995) UNCONFORMITY CONTINENTAL MARGIN AND INTRAPLATE ROCKS: Nb, Ta, Sn, W, Ma, Alkali feldspar granites (G3 granites - Younger Granites) Calc-alkaline, weakly deformed granitoids (G2 granites - Younger Granites) Ba, U, Th b Ti, Fe (V) g Gabbro-peridotite intrusive (Younger Gabbro) Molasse sediments (Hammamat Clastics) h Œ Cu. Au (Porphyry) Andesite-dacite-rhyolite (Dokhan Volcanics) m d Imp. por Σ Diorite-tonalite-granodiorite (G1 granites -Older Granites) a V O OPHIOLITIC MELANGE AND ISLAND ARC ASSOCIATION: ш (BIF), (Cu-Pb-Zn), Au. 0 Mainly metasedimentary matrix comprising blocks of meta-ultramafites, Œ Cr, Talc. Mag, Asb, Ver, metagabbros, mafic metavolcanics, and felsic metavolcanics. Emerald, Corundun 0 OLD CONTINENTAL CRUST: Gneisses, migmatites, amphibolites, and high grade schists. Gneisses, (BIF)

Fig 3

## Simplified Legend For Phanerozoic Sedimentary Rock Units

EXPLANATION						METALLOGENY
		QUATERNA	RY			
T	T	Holocene				
		Qsd	Qns	Qsb	Qon	
		Sand dunes	Nile sit, cultivated	Sabkhah and salt crust	Older Nile sediments: gravels, and conglomerate, with sand and silt	K, Na, WS.
Q	snore	Undivided Quaternary - wadi, playa and spring deposits in the south Western Desert; gravels in patches topping middle -latitudes limestone plateaux; raised coral reefs and gravel terraces along the Red Sea coastal zone, Gulf of Suez, and Gulf of 'Aqabah, beach placers along the northern coast, alluvial placers in wadis				" Eg. Alab" -Trav Beach and alluvial placers, silca glass
Qc	ayan	тап сечеюрп	d younger - Coas nent in the Arabs G	stal bars of colitic limest ulf area.	tone west of Alexandria, with	" Eg. Alab" - Trav
Tpl	Syst	TERTIARY  Pliocene - Oolitic limestone along the coastal areas of the north Western Desert; sandstone with chalky limestone and gypsum north of Wadi an Natrun; porcelaneous limestone with chert in Cairo -Suez district; limestone and coquinal beds along the northern part of the Nile Valley; red breccia with limestone lithoclasts, conglomerate and finer silicicidastics along the Nile in Upper Egypt; siliciclastics, bioclastics and reefal beds along the Red Sea coastal zone.				Pb & Zn, Mn, Ba
Tn	Sea	Post Miocene with root marks; foot hills of the soccasionally ex				
Northward	Red	Upper Miocene siliciclastics and				
i	1	Middle Miocene	- Biogenic carbo	nates with marl and si	hale in the north Western	
mm	10					Pb & Zn, S, K,
-	1	stretch overum	and anhutrite will	sandstone carbonate la	typers along the Red Sea coastal intercalations around the Gulf of onities probably extend into Upper	Mn, Ba, Gyp, Sr

	Upper Miocene - Sandstone and/or arenaceous carbonates in Cairo - Suez area:	and the second second
Tmu	Upper Microene - Sandstore and/or arenaceous carbonates in Cairo - Suez area; elicidastes and limestone along the Red Sea coast.	
Z Tmm	Middle Miocene - Biogenic carbonates with mari and shale in the north Western Desart; calcaneous grit and sandy limestone interfingering with gypsum in 'Akagah area; reefal carbonates; shale, mari and sandstone carbonate layers along the Red Sea coasts steetch; gypsum and anhytidine with carbonate and shale intercalations around the Gulf or Suez, in patches along the Red Sea coastal stretch Evaporities probably settled mid-	Pb & Zn, S,K,  If Mn, Ba, Gyp, Sr
Tml	Lower Miccone - Mainly sliciclastics with minor carbonates, in the north Western Desert, coarse land and gravet west of Cairo; sandstone,conglomerate, gittly or cyster limestone, and shale around the Guif of Suez; fangiomerates, sand and shale along the Red Sea coas	
Tm	Undifferentiated Miocene.	
Tv	Oligo - Miocene - Basaits and dolerites. Perdotte	peridot
То	Oligocene - Clastics and gravel sheets in the Cairo - Suez and Cairo- al Fayyum - al Bahariyah stretches and on top of Ecocare plateau west of the Milo, conglomerate, aitistone, procelamous timestone in central Simit; conglomerate in al Quisay - Safajah area; argitaceous timestone, at the foot of as Salam scap in the Western Desert	Kaol, Fe. Och. "Eg. Alab" - Trav, WS.
Francisco	Upper Focene - Calcarrous conditions with	
Teu	and sandstone intercalations east of Cairo.	Fe, "Eg. Alab" - Trav, Mn
Tem	Middle Eocene - Nummultic Emestone and chalk, occasionally with chert in the Cairo-Hilwan divide with variably increasing shale and argillaceous limestone intercalations to its east and west.	Fe, Ba, Och
Telm	Lower to Middle Eccene - siliceous and dolomisc limestone with minor clay in the middle- latitudes plateau areas in the Eastern and Western Deserts.	
Tel	Lower Eccene - Limestone with chert bands and concretions, and variable shale content on both sides of the Nile in Upper Egypt, in the south Western Desert and in central Sinai; Paleonene - Shale and actifications and so	Bent
76	Paleocoane: Shale and argillaceous limestone, more calcareous at top, widely distributed in the south Western Desert, the Mile Yalley, the Red Sea coast and Sinai; Carbonates predominate in the southern most Western Desert and west of all Farafrah Ossis.	
	E CRETACEOUS	
rc	Pling complexes (mostly alkaline syenites).	Syenite
Kus	Cretaceous (Senonian): includes a) Campanian and Masstrichtan - Silicicastics and carbonates with phosphate beds in the south Western Desert, Nile Valley in Upper Egypt and Red Sea coast; chalk in north Egypt.	P
Tethyan	b) Coniacian and Santonian - Carbonate-siliciclastic sequence with zones of colitic ironstone in Aswan area and Wad Qina; fossiliferous mudstone in northern part of Egypt.	Fe
N S	Wadi Natash Volcanics - Dominantly alkaline basalt, andesite and trachyte	
0	Cenomanian and/or Turonian - Predominantly carbonates in northern Sinat; angittaceous limestone in at Jalatah area; sisciclastics and coquinoid limestone in Wadi Cina; fluviatile siliciclastics in southern Egypt; sandstone in Aswan and east of Lake Nasir area.	Fe, Kaol, WS.
W E S	Lower Cretaceous - Sandstone and calcareous sandstone with oolitic ironstone in	Fe, WS.
KI-j prewytro	Lower Cretaceous-Jurassic? - Sandstones and conglomerates, in some areas of southern Egypt.	
J	JURASSIC - Alternating fluviatile and marine silicitastics, ironstone, coal seams, and shallow marine carbonates, topped by dense carbonate beds with abundant chart in northern Sinal.	Coal, Fe, Kaol.
Tr	TRIASSIC - Clastic-carbonate complex with anhydrite and gypsum intercalations at northeastern Sinal.	
O pzu	central Sinai, probably of Permo -Triassic age.	We.
Pzc	CARBONIFEROUS - Dolomilic linestone hosting manganese deposits overtain by silectisatics, occasionally carboniaceous, in central Sinal, silectisatics and criniudal limestone west of the Gulf of Sucr siciolisatics and hostic boulders overtain by carbonaceous clastics in Jabal al 'Uwaynat-Abu Ra's atrea in the south Western Desert	Vn, Cu, U, Coal
Pz	UNDIFFERENTIATED PALEOZOIC (pre-Carboniferous) - sliciclastics, in western and central Sinal, north Eastern Desort, the northeastern alopes of Jabal at 'Dwaynat and in the western toreland at al Jiff at Kabir-Abu Ra's Plainau in the south Western Desort	